Index of articles published in the

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of DPMA's Conference Proceedings

This index lists all articles printed in the twelve issues of the *Journal of Data Management* (Volume 7, January through December 1969) and also the articles in Data Processing Volume XIV, which carries selected seminars from the 1969 Conference.

Format of the Index

Articles are listed under the author's name, and also by subject category. The articles are grouped into these seven categories: Hardware Selection and Operations; Microfilm and Optical Character Recognition; Management; Personnel Training and Education; Programming—Software and Documentation; Systems Design and Control; Time Sharing and Communications.

Reprints of Articles

Reprints are available from DPMA International Headquarters, 505 Busse Highway, Park Ridge, Illinois 60068. Price is $1.00 for each article from the Journal of Data Management, and $1.50 for each article from Data Processing Volume XIV. Copies of this index of articles are available at $.75 per copy.

Hardware Selection & Operations

Conversion to a Third Generation System, John E. Czerkies, Vol. XIV, p. 227.

Simulation, manual reprogramming and automatic translation are the three approaches the author discusses for converting programs from an old to a new (non-compatible) machine.

Effects of Future Hardware Developments on Future Information Systems, David P. Glick, Jr., and Robert Neff, Vol. XIV, p. 381.

Technological trends point to the eventual capability of satisfying the demands of a Total Information System, not from a single hardware or software development, but rather by the consistent progress gained through experience and new ideas.

Error Detection and Correction, Marvin Denicoff and Dr. Thomas C. Varley, Vol. XIV, p. 27.

A basic structure for understanding the data input error problem, from its creation to a successful correction or final disposition.

Insuring Successful Systems Implementation, Nicholas Retza, Vol. 7, No. 5 (May, 1969) p. 24.

No matter how well planned, the big problems of the system unfold after the system goes on the air.

Job Costing a Multiprogramming Computer, R. A. Kline and M. Snyderman, Vol. 7, No. 1 (January 1969) p. 19.

With the advent of third generation computers which can run several programs concurrently, distribution of computer costs among various jobs has become extremely complex. This sample solution, especially applicable to smaller computer installations, was implemented at the Science Information Exchange.

Overview of EDP Equipment Selection Activities, W. Fred Weihrich, Vol. XIV, p. 121.

Indispensible first step in any acquisition is the reduction of the avowed requirements to a definitive ADP System specification.

Scheduling Computer Operations, Malcom H. Gotterer, Vol. XIV, p. 98.

In evaluating a computer center as a profit or a cost factor, one must judge the center by the dual standards of its service to the users of the computer and the effectiveness with which the computer operations are performed.

Scheduling Techniques in a Changing Environment, Lawrence W. Lozen, Vol. XIV, p. 237.

A major problem in scheduling computer production is the daily unscheduled work that must be processed. An outline of general scheduling techniques and procedures is supplemented with scheduling procedures for second, third, and fourth generation equipment.

Techniques of Selection, Edward O. Joslin, Vol. XIV, p. 115.

Procedures for preparing specifications on competitive selection, workload representation, evaluation techniques, and costing techniques.

Management

Advent of Information and Inquiry Services, George Schussel, Vol. 7, No. 9 (September, 1969) p. 24.

Continued growth of specialized information needs indicates the information field will become an important science specialty in itself.

Budgeting and Control of Data Processing, Dr. Marvin M. Wofsey, Vol. XIV, p. 91.

Should data processing be treated as a cost center or as a profit center? The variable budget and analysis of variance are proposed as techniques which might profitably be applied to DP.

Computer Game – Or, Putting Matter Over Mind, Warren Shore, Vol. 7, No. 12 (December, 1969) p. 40.

A newspaper reporter interviews a computer – the machine which allegedly "can think."

Consulting Consultants, Ira S. Gottfried, Vol. 7, No. 6 (June, 1969) p. 44.

Ten major reasons why companies turn to management consulting firms.

DP Manager and the Corporate Organization, Stephen Di Stefano, Vol. XIV, p. 275.

The position of the DP Manager within the corporate structure has changed with every generation of computers and will probably continue to change.

Effective Use of Executive Time, Personal Time Management, Ira S. Gottfried, Vol. XIV, p. 439.

Efficient personal time management requires both a desire to be more efficient and a willingness to assert self-discipline.

Modern Managment of Computer Development Teams, Kent D. Kitts, Vol. 7, No. 8 (August, 1969) p. 19.

Team structures and techniques that improve team performance in the data processing area.

The Move Toward Centralization, Norman E. Williams, Vol. XIV, p. 398.
As our machines become more centralized, the services they perform become more personalized or "decentralized" to the user.

On Redefining Corporate Death, John J. Marshall, Vol. 7, No. 6 (June, 1969) p. 40.
An analogy of the similarities in the present medical-legal problem of determining death and the present corporate-computer dilemma in determining the quality of a corporation's life.

Planning for EDP in the Smaller Company, John P. Shanley, Vol. XIV, p. 215.
The decisions smaller companies face when considering using data processing is not really one of alternative methods, but rather of making an orderly evaluation of the problems to be solved and the objectives sought.

Responsibility and the DP Supervisor, Herman P. Carson, Vol. XIV, p. 267.
The tremendous increase in DP power has yielded a capability for extending the computer services so extensively as to expand the scope of the DP supervisor beyond that of his own department.

The Role of the DP Manager, Louis Real, Vol. XIV, p. 271.
The DP manager in a billion-dollar bank.

Selecting A Consultant, Ira S. Gottfried, Vol. 7, No. 10 (October, 1969) p. 32.
A guide for getting full value from an investment in management consulting services which can provide a firm with strong supplemental capabilities.

Selection of Data Processing Projects in the Seventies, Frank M. Verzuh, Vol. XIV, p. 199.
Guidelines for selecting DP projects which best satisfy corporate objectives.

A Solution to the Small Company's EDP Dilemma, J. L. Sorensen, Vol. 7, No. 4 (April, 1969) p. 28.
Time-share or install your own small computer? The best answer for the small and medium-size company appears to be a combination of both.

Third Generation Management, James H. Butt, Vol. 7, No. 9 (September, 1969) p. 38.
The third generation manager must be a professional manager – capable of planning, making decisions, and communicating with his superiors and his subordinates.

Third Party Leasing, Eugene F. Drzycimski and Richard A. Kaimann, Vol. 7, No. 1 (January, 1969) p. 32.
An examination of the potential offered by third party leasing ascertaining the advantages and disadvantages from the financial cashflow point of view of both the lessee and lessor.

Where are We Heading? An Industry in Transition, James R. Bradburn, Vol. XIV, p. 1.
"Under the surface of the advancing sophisticated technology lie the problems of an industry in transition, asking of us a greater effort, clearer heads, and a deeper commitment than ever before."

Microfilm Optical Character Reading

Computerized Microfilm Eliminates a Hospital's Retrieval Problems, Lee Luesner, Vol. 7, No. 8 (August, 1969) p. 22.
A claim retention and retrieval system on microfilm.

Data Processing Supplies Association and Optical Character Recognition, John H. Dunham, Vol. XIV, p. 283.
A report from the applied research committee of DPSA on Optical Character Recognition on the requirements to be met if OCR is to advance and progress.

IBM's OCR Equipment, William H. Anderson, Vol. XIV, p. 292.
The problems and potential of Optical Character Recognition equipment and systems.

Microfilm As an Information Medium, Kenneth J. Anderson, Vol. 7, No. 8 (August, 1969) p. 24.
Increasing demands of technical data systems for faster access to greater volumes of information necessitate more versatile and durable storage mediums.

Microfilm Today, George R. Clarke, Vol. XIV, p. 297.
A discussion on the basics of microforms, equipment, applications and available systems.

OCR Products, William F. Hanrahan, Vol. XIV, p. 287.
A summary description and application of some of the OCR products manufactured by Farrington Manufacturing Company.

Optical Scanning Solves Critical Input Problem, Ralph McCracken, Vol. 7, No. 7 (July, 1969) p. 24.
Customized forms and a computerized system that reads them have replaced ten bookkeeping machines in the accounts receivable section of the central accounting section at H. J. Heinz Company.

Personnel Training and Education

An In-House Systems Training Program – A Case Study, John J. Anderson, Vol. 7, No. 8 (August, 1969) p. 30.
The overall structure of the program and the procedures involved in implementing a comprehensive training program within a large industrial concern.

Automated Job Description & Evaluation of Computer Related Occupations, W. J. Stuart, Vol. 7, No. 9 (September, 1969) p. 31.
This job description system automatically classifies a position, calculates an equitable salary level, and writes a position description for every employee in the complex.

Curriculum Planning for Business Applications Programming, Paul R. Ash, Vol. XIV, p. 407.
Training that EDP people need is not only of a technical nature but also must include a knowledge of business operations which is essential for successful business management.

Data Processing Curricula for the Junior College, Willard R. Post, Vol. 7, No. 4 (April, 1969) p. 22.
The junior colleges, the author holds, require flexible curricula to provide advanced training in technical areas and also to give a good foundation for students who go to more advanced work of an academic nature.

The Demand for EDP Personnel, Capt. Reid Henderson and Eleanor Irvine, Vol. XIV, p. 251.
While demands for highly skilled EDP personnel are continuing to increase, certain new EDP approaches (facilities management, time-sharing, software packages, outside service organizations) are fostering a lessening of direct involvement and control of the computer.

Developing a System Training Program, John J. Anderson, Vol. 7, No. 7 (July, 1969) p. 26.
Considerations involved in developing a training program that will meet systems requirements on a continuing basis.

Educating EDP Personnel, George Ravazzolo, Vol. XIV, p. 259.
Since manufacturers no longer provide "free" training of personnel, companies must start planning and budgeting for education as a key item in their data processing operation.

First Guidelines for Operation of Private Data Processing Educational Institutions Published, Vol. 7, No. 5 (May, 1969) p. 38.
DPMA Private Data Processing School Standards Committee recommendations provide yardsticks for the private schools, the interested public, and for the data processing community.

From Japan: An EDP Curriculum, Vol. 7, No. 7 (July, 1969) p. 35.
Courses and requirements of this Japanese technical college are a startling contrast to requirements of some schools in this country.

Guidelines for Private EDP Schools, Anton G. Myse, Vol. XIV, p. 414.
A commentary on factors considered by the committee which was responsible for DPMA's Guidelines for Private EDP Schools.

ICAP: A System for Professional Growth, Peter Savides, Vol. XIV, p. 377.
A briefing on IBM's intermediate course for application programmers as a base for building an education program to develop intermediate and advanced programmers.

Private EDP Schools: An Appraisal, Paul M. Pair, Vol. XIV, p. 403.
An appraisal of how the private data processing schools have responded to the need for trained EDP personnel.

Progress Report on Long-Range Advisory Committee, Sol. Pollack, CDP, Vol. 7, No. 3 (March, 1969) p. 74.
One of the twelve members serving on the Long Range Advisory Committee reported on the group's recommendations to be given consideration in planning DPMA's programs for advancing the professionalism of the data processing community.

Purdue University's MIS Graduate Program, Vol. 7, No. 4 (April, 1969) p. 24.
Industry and education joined forces in sharing facilities and knowledgeable personnel to aid in developing a graduate level program at Purdue's Computer Science Center in Lafayette, Indiana.

Reviewing for the CDP Examination, Vol. 7, No. 9 (September, 1969) p. 52.
How's and why's of studying for the revised CDP Examination.

The Systems and EDP Manager–A Profile, Donald Kaye, Vol. 7, No. 6 (June, 1969) p. 62.
Current manpower sources, salary ranges, and employer requirements are explored.

The Systems Approach in Education, Lloyd D. Doney, Vol. 7, No. 4 (April, 1969) p. 18.

Educators who are structuring curricula for students of business should look to the similarities rather than the differences of subject matter ideas and create courses that integrate rather than dissect knowledge in those areas.

Utilizing the High Schools' Data Processing Center, R. L. Arnold, Vol. 7, No. 9 (September, 1969) p. 36.

The dp center at Maine Township (Park Ridge, Illinois) is used as a teaching device as well as a problem solving tool by the teachers and administrators at the townships' three high schools which have a combined enrollment of over 10,000.

Programming, Software & Documentation

Evaluating and Selecting Software, Duane J. Ring, Vol. XIV, p. 169.

A presentation of the viewpoints of the vendor as they apply to the evaluation and selection of a software package.

Evaluating Software Packages, William C. Shively, Vol. XIV, p. 159.

A consideration of the possible problems to be encountered, as well as the advantages to be gained, in purchasing software packages.

Federal Income Tax Treatment of Software Costs, Leighton Smith, Vol. 7, No. 12 (Dec., 1969) p. 22.

An interpretation of the recent IRS guidelines which have left many questions unanswered and therefore will be subject to the decision of the reviewing agents.

Federal Information Processing Standards, Joseph O. Harrison, Jr., Vol. XIV, p. 451.

As the world's largest user of data processing equipment, the U.S. Government keeps the computing community informed about its uses and activities.

High Level Languages, Efrem G. Mallach, Vol. XIV, p. 151.

Higher level languages are not a cure-all for EDP's ills; the future of the higher-level languages is up to their users.

Linear Programming and EDP, John W. Coughlan, Vol. XIV, p. 307.

A consideration of the joint development of EDP and linear-programming and some of the ways linear programming can offer guidance in the operation of computer facilities.

A Modular Approach to EDP Documentation, Harry B. Verstandig, Vol. 7, No. 7 (July, 1969) p. 18.

Why documentation is so important to successful EDP operations is supported by a model structure of a modular documentation system.

Multiprogramming: The New Economics, Earl E. Vance, Vol. 7, No. 5 (May, 1969) p. 18.

The multiprogramming approach completely changes the fundamental economics of large-scale data processing. In terms of dollars and cents, the appeal is irresistible.

New Approaches to Documentation and Debugging, John J. Marshall, Vol. XIV, p. 425.

The worthless quality of much of the work passing as "documentation" today might be more than offset by standardizing the programming and systems design which is being documented.

Neat/3 Eases Programming for Beginner and Expert, Roy E. Kuntz, Vol. 7, No. 4 (April, 1969) p. 34.

An assembly language introduced by NCR is said to be intricate enough to cope with the full-range of business processing techniques yet simple enough to permit quick comprehension by the inexperienced user.

Program Testing, William L. Harrison, Vol. 7, No. 12 (December, 1969) p. 30.

A unit test plan designed to establish orderly approaches to testing and to ensure that all functions of a program are tested before being put into production.

The Role of Standardization in Information Processing, Vol. XIV, p. 458.

Three basic areas of standardization are explored: the environment; the methods used during the past eight years; and the future methods to be employed in establishing standards.

Software Package Activity in Western Europe, L. A. Welke, Vol. 7, No. 11 (November, 1969) p. 20.

Examination of software activity in Europe and a forecast of major market potential.

Sorting, Make the Technique Fit the Job, W. Flies and T. Yates, Vol. 7, No. 12 (December, 1969) p. 34.

All too often the vendor's sort/merge package has been accepted as the answer to an organization's specific need . . . there are more efficient techniques.

Standardization of High Level Programming Languages, CDR. Grace M. Hopper, USNR, Ret., Vol. XIV, p. 329.

While dollar savings can be predicted through the use of standard languages, the real savings will lie in avoiding expenditures. Of far greater importance are the savings of scarce programmer time, the mobility of programs and programmers, and the freedom to progress readily toward the computer of the future.

Viewing the Software Industry, Vol. 7, No. 11, (November, 1969) p. 22.
Leading industry commentators take a hard look at the status of the software industry and existing potential.

The Viewpoint of a Broker, L. A. Welke, Vol. XIV, p. 165.
In purchasing software the buyer should always know to whom he has recourse for the package he has or is planning to acquire.

Systems Design & Control

Breakthrough in Management Information Systems, Dr. Paul Kircher, Vol. 7, No. 2 (February, 1969) p. 28.
The age-old problem of file maintenance with new packaged programs. This article indicates how packaged file maintenance programs are being used by managers, systems designers and accountants in the design of management information systems.

Computer Answers Rate, Route Inquiries in Seconds, John D. Kilpatrick, Vol. 7, No. 2 (February, 1969) p. 36.
Wisconsin Telephone Company's audio response system, which has speeded response time rate and route inquiry calls from 40 to 15 seconds, is said to be saving the company $250,000 a year over and above the computer equipment rental charges and system operating costs.

Computerized Circulation Maximizes Sales, Vol. 7, No. 1 (January, 1969) p. 26.
A computer-controlled circulation system utilized by the Chas. Levy Circulation Co. for maximizing sales and minimizes returns of more than 1,000 periodicals sent to some 2,200 new dealers each month.

Computerized Circulation System, Vol. 7, No. 2, February, 1969) p. 40.
A description of the automatic processing system developed by Business Publishers Circulation Services, Duluth, Minnesota, which integrates the entire circulation function from acquisition fulfillment to publisher's statement. The NCR system services some 30 business publications.

Control of Systems Projects, Irwin T. David and Arnold Ditri, Vol. XIV, p. 177.
In an economy of rapid change management must anticipate, plan for, and manage the change-business systems adapted today must recognize the needs of tomorrow.

Controls for EDP Systems, Robert J. McGowan and George B. Meissner, Vol. XIV, p. 61.
Checkpoints to determine if the controls in your installation are adequate and a discussion of fundamental controls DP managers should insist upon for third generation computer systems.

Current Developments Toward An Improved Payments System, George White, Jr., Vol. 7, No. 6 (June, 1969) p. 46.
The funds transfer area, not plagued by the paper handling problems facing the securities industry, benefited from established workable standards.

The Cybernetic Inventory Control System, Ralph T. Hocking, Vol. 7, No. 10 (October, 1969) p. 28.
An inventory control system that really controls . . . and places management in the hands of the manager.

Data Verification, Martin Snyderman, Vol. 7, No. 11 (November, 1969) p. 28.
A third generation technique of data verification employing new operating principles.

The Direction of Municipal DP Services, Ben Cramer, Vol. XIV, p. 391.
Limitations of the small computers justified the growth of independent computer systems by the municipal agencies; but greater computer power now permits the pooling of our resources through central municipal systems.

EDP Systems Audits, Techniques of Post Systems Installation Auditing, James A. Campise, Vol. XIV, p. 45.
Rationale for reviewing the performance of systems after they are put into operation.

Impact of Federal Standards on Systems Planning, Thomas L. Yates, Vol. 7, No. 7, (July, 1969) p. 32.
The standards for information interchange to be imposed on organizations which exchange data files with Federal agencies and manufacturers will orient equipment toward those standards.

Interviewing: Neglected Area of Computer Systems Design, John E. Connor, Vol. 7, No. 3 (March, 1969) p. 28.
Well-planned interviews with departmental managers have the same advantages over spur of the moment interviews as well-planned programs have over other varieties; but systems designers often neglect to plan an interview approach and all too often merely play it by ear.

Managing the Systems Project, William H. Way, Vol. 7, No. 5 (May, 1969) p. 28.

Responsibilities of the systems analyst must include getting the system on the air, not only defining the system.

Merchandising Flexibility in the Chain Stores, Vol. 7, No. 3 (March, 1969) p. 30.

Priority problem of a 23-store discount chain is getting sales information fast, and for the lowest possible dollar cost. Punch tape registers and a computer linked the 23 stores to report sales opportunity areas and situations requiring remedial action.

Modular Method of Structuring MIS, Making the Concept a Reality, Dr. James V. Milano, Vol. XIV, p. 15.

The slow progress in resolving the dilemma of Management Information Systems lies in the approach of seeking a quick solution based on a breakthrough. Not enough thought is given to the factors influencing the structuring of an MIS, the author maintains.

On-Line Real Estate Tax System, Brooke W. Boering, Vol. 7, No. 1 (January, 1969) p. 22.

With the implementation (in early 1967) of its TOOLS real-time teller service system, Talman Federal Savings and Loan Association of Chicago initiated a tax payment system which allows absolute control of both the activity and the record of the institutions's tax file via a remote terminal setup.

Reducing the Risk of Destruction, Harold Weiss, Vol. XIV, p. 417.

Some methods to employ for minimizing the possibilities of destruction to critical equipment and files.

The System Model-An MIS Insurance Policy, L. P. Wheeler and Gary Campbell, Vol. 7, No. 6 (June, 1969) p. 56.

An approach to systems testing which can considerably reduce the risk of systems failures and conversion crises.

Understanding the Problems in Real Time Systems, Harold F. Jensen and John Mueller, Vol. XIV, p. 129.

An evaluation of approaches to aid in ensuring successful planning, design, implementation, cutover and utilization of real-time systems.

What About the Computer Utility, Solomon L. Pollack, Vol. XIV, p. 497.

The introduction of time-sharing facilities to the computer world has introduced a phenomenon called the computer utility — a company that provides an integrated mix of computing and communication services to the public. Its future depends on business, industry, and government regulations.

Why Man to Man Defense for EDP Audit Control, James Binns, Vol. 7, No. 10 (October, 1969) p. 22.

Since it is impractical and expensive to maintain two EDP staffs, one in EDP and the other in Auditing, a technique is proposed for EDP Audit controls to be maintained by EDP personnel.

Work Breakdown Structure for Improved Systems Management, M. H. Schwartz, Vol. 7, No. 1 (January, 1969) p. 14.

No project, other than the most trivial, should be undertaken without a work breakdown structure, for it is the key to planning, to organization of the effort, to direction of implementation, and to control.

Time Sharing & Communications

Data Communications Expedite Public Aid Program, Vol. 7, No. 5 (May, 1969) p. 35.

Computers eliminate the paperwork for the social services centers and expedite the welfare programs of Los Angeles (California) County.

The Impact of Satellite Communications on Computer Networks, Peter J. Knoke, Vol. XIV, p. 349.

An exploration of the impact of satellite communications on computer networks, in a qualitative manner with the aid of some quantitative examples.

Modern Electives in Time-Sharing, Marvin E. Bergen, Vol. XIV, p. 370.

Various electives available to the time-sharing user include the hardware (improved terminals), and in the general area of software — new languages, extensive improvements in the older languages, and powerful packages.

New Horizons for Communications, Charles Winston, Vol. 7, No. 6 (June, 1969) p. 67.

The author foresees a time soon when the transmission of information will substitute for the transportation of people.

On-Line Processing, How Will It Affect Your Organizational Structure, William Blose and Earl Goetze, Vol. 7, No. 3 (March, 1969) p. 18.

Most current theories of structuring organizations stress the concern for humanizing the organization. What needs to be recognized is that technology may also exert an important effect upon the structure.

Planning a Data Communication System, William P. Davenport, CDP, Vol. 7, No. 2 (February, 1969) p. 18.

Based on an address given before the International Communications Association, this article traces the design of a data communications system from preliminary planning to follow up, touching upon both the physical and psychological aspects.

Preview of 1979-*Communications and the Computer,* W. E. Sims, Vol. 7, No. 9 (September, 1969) p. 20.

Speculations on the possible broad scale effects in business, industry and society by man adapting to and using the electronic marvel.

Technology and Advantages of Time-Sharing, Phillip C. Howard, Vol. 7, No. 8 (August, 1969) p. 26.
Theoretically, any function a computer performs could be considered a time-sharing application; in practice, however, it is not always efficient.

Time-Sharing: Advantages and Applications, Douglas C. Whitney, Vol. XIV, p. 475.
An examination of problems representative of the many applications in which time-sharing satisfies a variety of needs from the business and scientific communities.

Time-Sharing at This Point in Time, Lee Pryor, Vol. 7, No. 5 (May, 1969) p. 30.
Computer time-sharing at present is described as a conglomerate of third generation hardware, second software, first generation terminals, and 'zero' generation in management enlightenment.

Time-Sharing for the Smaller User, Peter J. Oeth, Vol. XIV, p. 342.
Bridging the gap between the capabilities of reactive time-sharing and the capabilities inherent in a small-to-medium sized, installed, free-standing computer system.

Time-Sharing: Its Significance for Management, Samuel Bookbinder and Clifford A. Leventhal, Vol. XIV, p. 105.
Two factors which make time-sharing significant for management consideration are the sheer growth of time-sharing facilities and the application of time-sharing to help management achieve its goals.

Why is Everyone Leaving? John M. Thompson, Vol. 7, No. 11 (November 1969) p. 25.
A survey of twenty-two data processing centers reveals significant trends in the all too high turnover rate of EDP personnel.

General Interest

DPMA's Executive Committee Members, Vol. 7, No. 10 (October, 1969) p. 44.
Introducing the members of the Executive Committee, with biographical sketches and highlights of their professional experience and contributions to DPMA.

DPMA to Hold Unbundling Briefings, Vol. 7, No. 11 (November, 1969) p. 18.
With the January 1 "unbundling" deadline set by several major data processing hardware manufacturers drawing near, DPMA slated a series of special informational meetings in six cities.

Overview of the Information Processing Industry, Vol. 7, No. 6 (June, 1969) p. 20.
Leaders in the industry gave the Journal their views of the future they anticipate for the electronic data processing community.

Report on DPMA's "Unbundling" Briefings, Vol. 7, No. 12 (December, 1969) p. 20.
Six briefings gave participants a clearer picture of how to prepare for the new marketing approach and minimize its impact on their data processing operations.

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Harrison, William L., *Program Testing*, Vol. 7, No. 12 (December, 1969) p. 30.
Henderson, Capt. Reid and Eleanor Irvine, *The Demand for EDP Personnel*, Vol. XIV, p. 251.
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Hocking, Ralph T., *The Cybernetic Inventory Control System*, Vol. 7, No. 10 (October, 1969) p. 28.
Hopper, CDR. Grace M., USNR Ret., *Standardization of High Level Programming Languages*, Vol. XIV, p. 329.
Howard, Phillip C., *Technology and Advantages of Time-Sharing*, Vol. 7, No. 8 (August, 1969) p. 26.

Irvine, Eleanor and Capt. Reid Henderson, *The Demand for EDP Personnel, Volume XIV, p.* 251.

Jensen, Harold F. and John Mueller, *Understanding the Problems in Real Time Systems*, Vol. XIV, p. 129.
Joslin, Edward O., *Techniques of Selection*, Vol. XIV, p. 115.

Kaimann, Richard A. and Eugene Drzycimski, *Third Party Leasing*, Vol. 7, No. 1 (January, 1969) p. 32.
Kaye, Donald, *The Systems and EDP Manager-A Profile*, Vol. 7, No. 6 (June, 1969) p. 62.

Kircher, Dr. Paul, *Breakthrough in Management Information Systems,* Vol. 7, No. 2 (February, 1969) p. 28.

Kitts, Kent D., *Modern Management of Computer Development Teams,* Vol. 7, No. 8 (August, 1969) p. 19.

Kline, R. A., and M. Snyderman, *Job Costing a Multiprogramming Computer,* Vol. 7, No. 1 (January, 1969) p. 19.

Knoke, Peter J., *The Impact of Satellite Communications on Computer Networks,* Vol. XIV, p. 349.

Kuntz, Roy E., *NEAT/3 Eases Programming for Beginner and Expert,* Vol. 7, No. 4 (April, 1969) p. 34.

Leventhal, Clifford A. and Samuel Bookbinder, *Time-Sharing: Its Significance for Management,* Vol. XIV, p. 105.

Lozen, Lawrence W., *Scheduling Techniques in a Changing Environment,* Vol. XIV, p. 237.

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Marshall, John J., *New Approaches to Documentation and Debugging,* Vol. XIV, p. 425.

_____ *On Redefining Corporate Death,* Vol. 7, No. 6 (June, 1969) p. 40.

McCracken, Ralph, *Optical Scanning Solves Critical Input Problem,* Vol. 7, No. 7 (July, 1969) p. 24.

McGowan, Robert J. and George B. Meissner, *Controls for EDP Systems,* Vol. XIV, p. 61.

Meissner, George R. and Robert J. McGowan, *Controls for EDP Systems,* Vol. XIV, p. 61.

Milano, Dr. James V., *Modular Method of Structuring MIS, Making the Concept a Reality,* Vol. XIV, p. 15.

Mueller, John and Harold Jensen, *Understanding the Problems in Real-Time Systems,* Vol. XIV, p. 129.

Myse, Anton G., *Guidelines for Private EDP Schools,* Vol. XIV, p. 414.

Neff, Robert and David P. Glick, Jr., *The Effects of Future Hardware Developments on Future Information Systems,* Vol. XIV, p. 381.

Oeth, Peter J., *Time-Sharing for the Smaller User,* Vol. XIV, p. 342.

Pair, Paul M., *Private EDP Schools: An Appraisal,* Vol. XIV, p. 403.

Pollack, Sol. L., CDP, *Progress Report on Long-Range Advisory Committee,* Vol. 7, No. 3 (March, 1969) p. 74.

Pollack, Solomon L., *What About the Computer Utility?* Vol. XIV, p. 497.

Pryor, Lee, *Time-Sharing at This Point in Time,* Vol. 7, No. 5 (May, 1969) p. 30.

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Real, Louis, *The Role of the DP Manager,* Vol. XIV, p. 271.

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Schwartz, M. H., *Work Breakdown Structure for Improved Systems Management,* Vol. 7, No. 1 (January, 1969) p. 14.

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Smith, Leighton, *Federal Income Tax Treatment of Software Cost,* Vol. 7, No. 12 (Dec., 1969) p. 22.

Snyderman, Martin, *Data Verification,* Vol. 7, No. 11 (November, 1969) p. 28.

Sorensen, J. L., *A Solution to the Small Company's EDP Dilemma,* Vol. 7. No. 4 (April, 1969) p. 28.

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Thompson, John M., *Why is Everyone Leaving?* Vol. 7, No. 11 (November, 1969) p. 25.

Vance, Earl E., *Multiprogramming: The New Economics,* Vol. 7, No. 5 (May, 1969) p. 18.

Varley, Dr. Thomas C. and Marvin Denicoff, *Error Detection and Correction*, Vol. XIV, p. 27.

Verstandig, Harry B., *A Modular Approach to EDP Documentation*, Vol. 7, No. 7 (July, 1969) p. 18.

Verzuh, Frank M., *Selection of Data Processing Projects in the Seventies*, Vol. XIV, p. 199.

Way, William H., *Managing the Systems Project*, Vol. 7, No. 5 (May, 1969) p. 28.

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Weiss, Harold, *Reducing the Risk of Destruction*, Vol. XIV, p. 417.

Welke, L. A., *Software Package Activity in Western Europe*, Vol. 7, No. 11 (November, 1969) p. 20.

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White, George Jr., *Current Developments Toward An Improved Payments System*, Vol. 7, No. 6 (June, 1969) p. 46.

Whitney, Douglas C., *Time-Sharing, Advantages and Applications*, Vol. XIV, p. 475.

Williams, Norman E., *The Move Toward Centralization*, Vol. XIV, p. 398.

Winston, Charles, *New Horizons for Communications*, Vol. 7, No. 6 (June, 1969) p. 67.

Wofsey, Dr. Marvin M., *Budgeting and Control of Data Processing*, Vol. XIV, p. 91.

Yates, Thomas L., *Impact of Federal Standards on Systems Planning*, Vol. 7, No. 7 (July, 1969) p. 32.

Yates, Thomas L. and W. Flies, *Sorting-Make the Technique Fit the Job*, Vol. 7, No. 12 (December, 1969) p. 34.

Meeting-of-the-Year For Information Processing Community Set For Seattle

Pacific Northwest Preparing To Host DPMA Conference and Exposition

Port-of-call for the information processing community's "meeting of the year" is Seattle, Washington, from June 23 through 26. The program for the DPMA 1970 International Data Processing Conference and Business Exposition is nearing completion. In keeping with DPMA's tradition of providing the highest quality seminar subject matter, speakers of outstanding knowledge and ability will conduct the seminar series.

A record number of registrants are expected to participate in 12 information-packed seminar series, plus a wide range of "general interest" seminars. Among the technical seminar series expected to attract considerable attention is one devoted to the topic of General Management. Individiual seminar subjects in this series will cover the principles involved, manager-employee communication techniques and how they can be improved, and the various methods employed to increase employee motivation.

Conference attendees are encouraged to register early for the seminars of their choice, and send in Hotel Reservation Forms as quickly as possible. Reservations will be handled on a first-come, first-served basis so don't delay! Opening day will be Tuesday, June 23, with Conference tours taking place and the opening of the DPMA Business Exposition. Conference activity will continue through Friday, June 26 and include a General Assembly, a separate program of activities for wives of attendees, banquet and entertainment, and industry tours in addition to the seminars.

Planning in Seattle is spearheaded by Conference General Chairman Edward E. Hacker, CDP, of The Boeing Company. Assisting are two Conference Vice Chairmen, Donald C. Jones, Automation Institute in Seattle, and Larry E. Walker, CDP, The Boeing Company, who are working with a battery of individual committee chairmen responsible for specific areas of Conference activity. The chairmen, members of the DPMA Puget Sound Chapter which is hosting the Conference, include the following: *Accounting,* Gary A. McLean, CDP, of Data Processing Consultants, Inc., Seattle; *Secretary,* Mrs. Allie L. Ernst, CDP, of Health Tecna Corporation, Kent, Washington; *Meals,* John S. Goodwin, The Boeing Company; *Conference Registration,* Robert L. Carpine of the University of Washington; and *Seminars,* Raymond D. Tanner of Moore Business Forms, Inc. Others are, *Hospitality,* Lester L. Miller, CDP, The Boeing Company; *Hotel Reser-*

Officers of the hosting chapter, the Puget Sound Chapter of DPMA, are (seated l-r) Fred Taucher, International Director and Treasurer of Division 2; Wayne Smith, President; Bonnie Huber, Secretary. Standing (l-r) are Roger Trimble, Vice President, and Fred Palmer, Treasurer.

1970 Conference Committee (l-r) Edward E. Hacker, Larry E. Walker, Donald C. Jones, Gary A. McLean, Mrs. Allie L. Ernst, Robert L. Carpine, Earl J. Martinez, Richard W. Josephson, Robert F. Pesicka, Robert W. Day, Wayne Smith, Ralph E. McLaren, Lester L. Miller, John S Goodwin, Raymond D. Tanner.